

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

To:

PCT

see form PCT:ISA.220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing

(day month year) see form PCT:ISA.210 (second sheet)

Applicant's or agent's file reference

see form PCT:ISA.220

FOR FURTHER ACTION

See paragraph 2 below

International application No.

PCT.GB2004.004596

International filing date (day month year)

29.10.2004

Priority date (day month year)

30.10.2003

International Patent Classification (IPC) or both national classification and IPC

A01K67.033

Applicant

SEABAIT LIMITED

1. This opinion contains indications relating to the following items:

- ☐ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability: citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT:ISA.220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT:ISA.220.

3. For further details, see notes to Form PCT:ISA.220.

Name and mailing address of the ISA:

Authorized Officer



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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/004596

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/GB2004/004596

Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-10
	No: Claims	

Inventive step (IS)	Yes: Claims	1-10
	No: Claims	

Industrial applicability (IA)	Yes: Claims	1-10
	No: Claims	

2. Citations and explanations

see separate sheet

Re Item V

Reasoned statement with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement

Novelty/Inventive step: Although a similar method is known from WO-A-98:06255 for inducing spawning of Polychaete worms of the families Nereidae and Eunicidae, WO-A-98:06255 does not disclose a exposure time of 14 to 24 days, nor is the known method described as to be applicable to marine worms of the family Arenicolidae.

The prior published documents, cited in the description or in the international search report, either taken individually or in combination do not disclose, suggest or reasonably lead the person skilled in the art to consider the methods for inducing sexual maturation as presently claimed. The person skilled in the art would not be able to combine all the features of claims 1, 3 and 6 and as such arrive at the claimed methods without an inventive activity.

Claims 2 and 8 to 10 are dependent on claim 1, claims 4 and 5 are dependent on claim 3 and claim 7 is dependent on claim 6. As such they also meet the requirements of the PCT with respect to novelty and inventive step.

INTERNATIONAL SEARCH REPORT

In national Application No
PCT/GB2004/004596

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A01K67/033

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A01K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)
EPO-Internal, PAJ, WPI Data, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WO 98/06255 A (SEABAIT LIMITED) 19 February 1998 (1998-02-19) pages 23-37	1,2,6-10
A	DATABASE BIOSIS 'Online! BIOSCIENCES INFORMATION SERVICE, PHILADELPHIA, PA, US; Marine Ecology Progress Series, 175, 167-176 17 December 1998 (1998-12-17), WATSON ET AL.: "Control of oocyte maturation, sperm activation and spawning in two lugworm species: Arenicola marina and A. defodiens" XP002316464 Database accession no. PREV199900393581 abstract	3-5

☐ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *&* document member of the same patent family

Date of the actual completion of the international search

21 February 2005

Date of mailing of the international search report

10/03/2005

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INTERNATIONAL SEARCH REPORT

In International Application No
PCT/GB2004/004596

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 9806255	A	19-02-1998	
		AU 3780197 A	06-03-1998
		DE 69727681 D1	25-03-2004
		DE 69727681 T2	21-10-2004
		DK 917423 T3	28-06-2004
		EP 1380206 A1	14-01-2004
		EP 0917423 A1	26-05-1999
		ES 2216161 T3	16-10-2004
		WO 9806255 A1	19-02-1998
		PT 917423 T	30-06-2004

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